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NEW CHEMICAL LITERATURE

M. V. Lomonosov and His Work on the Chemistry and Technology of Silicates, M. A. Bezvorođov, Popular Scientific Series; 290 pp, nine inserts, price 20 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Biochemistry of Viniculture, Handbook No 2, Institute of Biochemistry imeni A. N. Bekh, edited by Academician A. I. Oparin and N. M. Sisekyan, Corresponding Member of the Academy of Sciences USSR; 184 pp., price 9 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Explains aging processes of wine from the standpoint of the mechanism of biological oxidation and reduction. Shows the use of fermentative preparations in regulating several technological processes.

Physical Chemistry, A. I. Brodskiy (sixth edition, in two volumes, revised and supplemented); authorized by Ministry of Higher Education USSR as a textbook for institutes of higher learning of the chemical specialties; 1,006 pp, price 30 rubles. Goskhimizdat, Moscow-Leningrad, 1948.

Ternary and Quaternary Systems; B. E. Volovich, M. V. Zakharov; authorized by Ministry of Higher Education USSR as a textbook for institutes of higher learning and their faculties; 228 pp., price 8 rubles. Metallurgizdat, Moscow, 1948.

Gives a general statement of the geometric principles of the structure of ternary and quaternary systems. Analyzes the following cases: unlimited solubility of the components in the liquid and solid state; ternary and quaternary eutectics; limited solubility; presence of one, two, or more chemical compounds.

N. N. Vorozhtsov (1881 - 1941), Moscow Order of Lenin Chemico-technological Institute imeni D. I. Mendeleev, All-Union Chemical Society imeni D. I. Mendeleev, edited by V. M. Rodionov.

- 1 - CONFIDENTIAL

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A series of articles devoted to the work of one of the organizers of the Soviet aniline dye industry.

Geochemistry of Petroleum, A. F. Dobryanskiy; 464 pp, price 34 rubles. Gostoptekhnizdat, Leningrad-Moscow, 1948.

Describes physical and chemical properties of petroleum and petroleum products in charting the explanation of petroleum extraction. Attempts a rational classification of petroleum and petroleum products.

Theoretical Bases of the Hydrogenation of Fats, S. U. Yelovich, G. M. Zhabrova, Institute of Physical Chemistry, edited by S. Z. Roginskiy, Corresponding Member of the Academy of Sciences USSR; 196 pp, price 10 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

States physicochemical bases of the process of catalytic hydrogenation of the triglycerides of fatty acids. Adduces experimental data on kinetics of catalytic hydrogenation in the liquid phase and gives introduction to diffusion kinetics of the hydrogenation of triglycerides.

Outline of the Development of Research on Chemotherapeutic Substances, I. S. Ioffe; 240 pp, price 21 rubles. Published by Naval Medical Academy, Leningrad, 1948.

Gives historical origin and development of the science of medicinal preparations. Devotes considerable space to a description of syntheses of spirilicidal, trypanosomicidal, antimalarial, and sulfanilamide preparations. A special chapter discusses new antibacterial substances of natural origin -- antibiotics and phytoncides. Summarizes the contemporary status and perspectives of chemotherapy. Gives an index of important monographs, surveys, and bibliography.

Analysis of the Air of Industrial Enterprises, I. M. Korenman, (third issue); 96 pp, price 4 rubles, 50 kopeks. Goskhimizdat, Moscow-Leningrad, 1948.

Discusses properties and methods for determining hydrocarbons (aliphatic and aromatic), petroleum and petroleum products, turpentine, and other substances in the air.

Technical Analysis in the Production of Intermediate Products and Dyes, R. P. Iastovskiy (second edition, supplemented and revised); 286 pp, price, 17 rubles. Goskhimizdat, Moscow-Leningrad, 1949.

Physicochemical Bases for the Reclamation of Oils, B. V. Losikov; 164 pp, price 7 rubles, 50 kopeks. Gostoptekhnizdat, Moscow-Leningrad, 1948.

Part I gives a classification for oils and the basic physicochemical indexes for determining the quality of oils. Part II discusses physicochemical bases of the processes of the reclamation of oils. The book is based mainly on the results of work done by the author in the laboratory of oils of the All-Union Thermal Engineering Institute imeni F. E. Dzerzhinskiy.

Scientific Literature on Problems of Luminescence (Bibliography for 1935 - 1946), Physics Institute imeni P. N. Lebedev, compiled by V. V. Antonov-Romanovskiy, T. O. Verden-Kobetskaya, N. A. Rabinovich; 336 pp, price 21 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

- 2 -

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Text is divided into the following sections: (1) general section (directions, references, history, etc.); (2) photoluminescence; (3) X-ray luminescence; (4) cathode luminescence; (5) radiation luminescence; (6) chemical luminescence and other types of excitation; (7) methods of research; (8) applications of luminescence; (9) technology and manufacture of luminescent materials.

Kinetic Method of Physicochemical Analysis, B. B. Negan, V. A. Shushunov, Institute of Chemical Physics, edited by V. N. Kondrat'yev, Corresponding Member of the Academy of Sciences USSR

Uses kinetic method of analysis for research on the binary and ternary metallic systems: Na and Pb; Na and Sn; Bi and Sn; Cd and Sb; Na and Pb and Mg; Na and Pb and K.

Qualitative Chemical Analysis, V. I. Petrashen' (sixth edition, revised and supplemented); authorized by Ministry of Higher Education USSR as a textbook for chemical specialties of the institutes of higher learning; 572 pp, price 22 rubles. Goskhimizdat, Moscow-Leningrad, 1948.

Catalytic Aromatization of Paraffin Hydrocarbons, A. F. Plate, edited by Academician B. A. Kazanskiy; 264 pp, price 17 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Gives methods for preparing aromatic hydrocarbons from crude oil. Initial sections treat catalytic aromatization of paraffin hydrocarbons; latter sections treat conversion of paraffin hydrocarbons by using catalysts such as chromic oxide, vanadium oxide, and molybdenum oxide. A series of chapters explains the mechanism of the aromatization of paraffin hydrocarbons. Concluding chapter presents a description of industrial methods of preparing aromatic hydrocarbons.

Röntgenographic Research on the Structure of Potassium Tetranitropalladate, M. A. Poray-Koshits, Institute of General and Inorganic Chemistry imeni N. S. Kurnakov, edited by Prof. G. B. Bokiy; 108 pp, price 6 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Describes X-ray analyses of possible isomers of inorganic compounds, known as "orientation isomers."

Biochemistry of the Potato, S. M. Prokshchov, Institute of Biochemistry imeni A. N. Bekh, edited by Academician A. I. Oparin; 228 pp, price 13 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Contains information on: (1) chemical composition of the potato and its variability; (2) physiological and chemical principles in potato storage; and (3) the potato as a food product.

Report on the Scientific Works of Members of the All-Union Chemical Society imeni D. I. Mendeleev (second issue); 40 pp, free. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Report of N. A. Izgaryshev: "Development of the Study of Corrosion and Measures for Combatting It in the USSR in the Last Thirty Years." Series of reference works on meetings of the various departments of the society.

- 3 -

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A Method of Analysis Which Does Not Use Filings, N. A. Tananayev; 212 pp, price 12 rubles. Metallurgizdat, Sverdlovsk-Moscow, 1948.

First two chapters outline theories and practical aspects of a method of analysis which does not use filings. Subsequent chapters are devoted to the method of analysis of ferrous alloys, carbides, nonferrous alloys, precious metals, films, and miniature parts. Appendix gives a description of typical apparatus and a list of necessary reagents for this method. These instructions are designed for workers in plant laboratories and scientific research institutes.

Themes of Reports of the Conference on the Struggle Against Corrosion of Metals in Sea Water, Department of Chemical Sciences, Commission for Control of the Corrosion of Metals; 28 pp, free. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Conference convened in Moscow, 18 - 20 November 1948.

Themes of Reports of the Conference on the Study and Utilization of Lignin, Department of Chemical Sciences, Main Administration of the Hydrolysis Industry of the Council of Ministers USSR, edited by N. N. Shorygin; 12 pp, free. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Conference convened in Moscow, 5 - 7 May 1948.

Transactions of the Third Conference on High-Molecular Compounds, Commission on High-Molecular Compounds of the Departments of Chemical and Physicomathematical Sciences; editorial college: S. S. Medvedev (editor-in-chief), B. A. Arbuzov, B. A. Dolgoplosk, V. A. Karchagin, S. P. Rafikov, Z. A. Rogovin; 180 pp, price 9 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Conference, held in 1945, was devoted to polymerization and condensation.

Underground Gasification of Coal, I. L. Farberov, R. M. Pitin, Council of Scientific and Technical Propaganda, edited by A. Ye. Chernyshev, Corresponding Member of the Academy of Sciences USSR; 24 pp, one insert, price 3 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Guide to Laboratory Works on Applied Electrochemistry, N. P. Fedot'yev, A. F. Alahyshev, V. A. Grigor; authorized by Ministry of Higher Education USSR as a textbook for institutes of higher learning in chemical specialties. Goskhimizdat, Moscow-Leningrad, 1948.

Describes 28 works on the following phases of electrochemistry: hydro-electro-metallurgy and galvanic engineering, electrolysis of fused salts, electrolysis of water solutions without electroplating (oxidation-reduction processes, electrolysis of chlorides of alkali metals), chemical sources of current.

Sedimentometric Analysis, N. A. Figurovskiy, Institute of Physical Chemistry, editing and foreword by Academician P. A. Rebinder; 392 pp, three inserts, price 20 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Contains a short outline of basic methods of dispersion analysis of coarsely dispersed systems and the theory of sedimentometric analysis (description of the

- 4 -

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apparatus and techniques of the analyses). Appendix contains reference tables on viscosities and densities of dispersed mediums and also a nomograph for calculating particle radii according to Stokes.

Introduction to the Theory of Metals, Ya. I. Frenkel'; 360 pp, price 12 rubles. Gostekhizdat, Leningrad-Moscow, 1948.

Course of lectures delivered in 1946 to the metallurgical faculty of Leningrad Polytechnical Institute imeni M. I. Kalinin. First ten lectures are on the electron theory of metals; remaining lectures treat the molecular-kinetic theory of hard and liquid substances. The style is simple and the book is designed for a wide circle of engineers and scientific workers.

Statistical Physics, Ya. I. Frenkel' (second edition, revised and greatly supplemented); 760 pp, price 55 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

Contemporary Methods of Preparing Toluene From Petroleum, Ye. M. Kheyfits; 56 pp, price 2 rubles, 50 kopeks. Gostoptekhizdat, Moscow, 1948.

Theoretical bases and technology of industrial methods of extracting toluene from petroleum and its distillates. Catalytic preparation of toluene from naphthenic acids and paraffin hydrocarbons; synthesis of toluene from other aromatic hydrocarbons and preparation of toluene by hydrolysis of heavy petroleum products.

Metallurgy of Heavy Nonferrous Metals, D. M. Chishikov, Institute of Metallurgy imeni A. A. Baykov; 1,058 pp, price 74 rubles. Published by Academy of Sciences USSR, Moscow-Leningrad, 1948.

States theory and practice in the production of four basic heavy metals: lead, zinc, copper, and nickel. Shows the advance of Soviet metallurgy in this field in the last 30 years. Gives data on metallurgy of heavy nonferrous metals in the USSR.

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- 5 -

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